## BREEDING THE TAIWAN RATSNAKE

By: Ton Steehouder, Theresiaplein 24, Tilburg.

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# INTRODUCTION

In recent years the breeding of the Taiwan Ratsnake (Elaphe taeniura friesei) has become quite common, especially in Germany, and has been reported in print several times, for instance by Schulz. Those who are interested can find some references in the bibliography. In this article I give some information about this magnificent snake, partly based on the above mentioned articles. Also, I describe the way I have been breeding this snake of late. Elaphe taeniura belongs to those Asian species which are imported regularly, but almost always in such a bad condition that the animals die within a short time. Only last year I received two specimens of Elaphe taeniura vaillanti which on their arrival had the "classical" symptoms (apathy, anorexia, pneumonia) and died within a week. You can not always resist the temptation, but buying these wild caught snakes often means losing not only the animals, but also the money invested. Captive bred Asian rat snakes are almost always unproblematic.

## THE SPECIES

Elaphe taeniura counts according to recent opinions 6 subspecies, which are all discussed in

the article by Schulz in this magazine (Schulz 1987). Amongst these subspecies, *Elaphe taeniura friesei* is the most beautiful one, and the largest. The length of adult Taiwan Rat Snakes is often more than 2.5 m. The mother of my snakes was about three meters long when I bought them from a German breeder.

## DISTRIBUTION AND HABITAT

This subspecies is only found on the island of Taiwan, consequently between the 22nd and the 25th degree of latitude, with the Tropic of Cancer in the centre. The mean temperature during the warmest month (July) there is 28°C, during the coldest month (January) about 20°C. Mean yearly rainfall is between 2000 and 3000 mm. The relative humidity is high. The snake inhabits quite a variety of habitats, even cultivated areas. It is an able climber. Apart from natural enemies, it is threatened by humans, as it appears on the menu of many restaurants.

## **APPEARANCE**

Yellow, olive-green, grey and black are the main colours of the Taiwan Rat Snake. The ventral surface has a satiny gloss and is covered with black markings. It almost looks as if there are three different snakes in the cage instead of one: behind the head, the body has black markings, the middle part has right-angled markings on the sides, and finally there is the magnificently black and yellow lined long tail. It also is one of the few snakes that I know that become more beautiful as they grow older: juveniles may look exactly like their parents, but as they grow larger, the markings "blow up" and all kinds of details become more distinct.

#### BEHAVIOUR

These snakes have a shy and somewhat nervous character, like (almost) all Asian Rat Snakes. That means for example that they do not like to be taken out of their cage, and that they tend to be frightened by unexpected movements. This characteristic is very marked in juveniles, which like to hide and hunt from their hiding places. In my experience, the type of vivarium used influences the behaviour of these (and many other) snakes. If you keep them in a 'protective' cage, which means one made from wood or any other non-transparent material, the animals will more often and more intensely be frightened by passing people, completely unexpectedly appearing before the front pane. When kept in fully transparent glass cage with free oversight of the room, the animals will get used to the coming and going of people and stop being frightened by normal human movements in the room.

#### THE BREEDING STOCK

In mid October 1985 I purchased a male and a female, born in 1984 from captive bred parents. At that time, although not yet a year and a half old, they were already stout animals, the female being a little larger than the male. Both animals were from the beginning eager eaters of mice, rats, chicks and hamsters.

### BREEDING STIMULUS AND COPULATIONS

The former owner had already been keeping the snakes cool for some weeks, and I continued this condition until mid January. The mean temperature



Foto 1: Eieren van *Elaphe taeniura*, eggs. foto T. Steehouder.

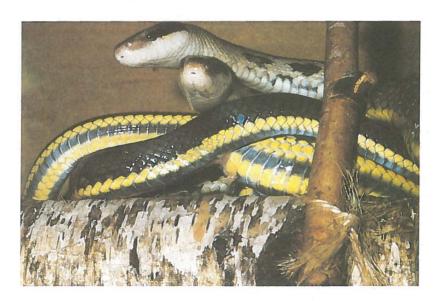


Foto 2: Paring van *Elaphe taeniura friesei*, copulating. foto T. Steehouder.

during this period was about 17°C. After this hibernation period I kept the animals separate. The female was kept in a cage with a female Elaphe obsoleta rossaleni. She started to feed well even before shedding. After her shedding I put her together with the male, but no mating took place, so I separated them again. On March 29th she shed again, after which I put her immediately with the male, which reacted with mating behaviour, but I could not see if they did in fact copulate, though they were lying still with their cloacas close to each other for about ten minutes. After that, there was again wild courting behaviour from the male for regular, short periods. The male was then about to start a shedding period and clearly had no further interest in the female. I decided to separate them again until he had shed. I put the animals together again on April 5th, as I needed a cage for other snakes. The male shed on April 12th, and within a couple of hours, at about 20.45 h, I found the snakes copulating; this lasted for about an hour. From that very moment on the male lost any interest in the female.

## **EGGS**

On June 7th, 1988, the female layed nine elongated, large eggs, that were stuck together in a cluster. She layed them in a plastic ice-cream box containing moist wood shavings. The total weight of the cluster was 380 grams. The mean weight of each egg was consequently 42,2 grams. The eggs were on average about 65 mm long and 30 mm wide. I incubated the eggs in coarse, moist sand at temperatures between 28 and 31°C. What was probably the first laid egg spoiled about July 20th, starting with mould and ending with discolouration and a smelly odour. The rest of the eggs were then still in good condition, though later on two other

eggs spoiled, one right in the middle of the cluster. There was woolly white mould, that disappeared when I covered the eggs with fresh wet sand.

#### THE HATCHLINGS

On August 10th, 1988, after an incubation period of 46 days, five young hatched, and the next night another one hatched. There average weight was 28,9 g (resp. 26, 30, 31, 27, 29 and 30 g), their mean length about 40 cm.

All hatchlings were healthy and well formed, and perfect images of their parents, though with relatively larger heads (long and slender). The markings were distinct, the colours somewhat vaguer than on the parents. Two hatchlings were clearly more agressive than the other four. These two appeared to be the males, the other four were females.

All young were sold to other snake keepers and did extremely well there, being fierce eaters and growing extremely fast. One female even reached a length of about 190 cm within one year! Two couples started to show mating behaviour within a year. It can be expected that in a couple of years there will be enough captive bred Taiwan Rat Snakes in the Netherlands to enable a substantial quantity of amateurs to keep this handsome snake.

#### LITTERATURE

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